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Professor Joshua Lederberg
Department of Genetics
School of Medicine
Stanford University
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Dear Josh,

I enjoyed reading the exchange between you and Muller very much. Considerable prescience, as usual.

Caffeine was negative in our system (see J-9 in the December PNAS article). Our strains were uvrB however. I have done an experiment with a uvrB⁺ strain and there caffeine doesn't do anything alone, but increases the mutagenicity of nitrogen mustard about 25 times. The uvrB mutation alone increases the mutagenicity of NM about 75 times. That might fit in with caffeine inhibiting the uvrB repair system (accurate excision repair). I have accumulated a pile of reprints on caffeine effects in humans or animals and could send you those if you are interested. (I have not read most of them).

I have recently been appointed to the National Cancer Advisory Board and I would like to get your ideas on directions of cancer research sometime. Next time I visit Stanford maybe I can stop in and we can chat a bit.

Yours truly,

Bruce N. Ames
Professor of Biochemistry

BNA/GS